

8/8 - (C) WPI / DERWENT  
AN - 1982-16697E [09]  
PR - JP19800088194 19800627  
TI - Treating waste water contg. ammonia-nitrogen and organic carbon - by adjusting carbon-nitrogen ratio and subjecting to anaerobic fermentation  
IW - TREAT WASTE WATER CONTAIN AMMONIA NITROGEN ORGANIC CARBON ADJUST CARBON NITROGEN RATIO SUBJECT ANAEROBIC FERMENTATION  
PA - (DAIK-N) DAIKI GUM KOGYO K  
PN - JP57012896 A 19820122 DW198209 005pp  
JP58041916B B 19830916 DW198341 000pp  
IC - C02F11/04  
AB - J57012896 Org. wastes contg. a large amt. of NH3-N and organic carbon component are treated by anaerobic fermentation. Improvement comprises removing portion of NH3-N to adjust the C/N ratio to range for generation of CH4 by anaerobic fermentation, prior to subjecting to anaerobic fermentation, so that CH4 generating efficiency is elevated, and amt. of NH3-N contained in liquor after the fermentation treatment is decreased.  
- The removal of a portion of NH3-N is carried-out by adding Ca(OH)2 or NaOH to the wastes to adjust pH to greater than 10, and stripping-off it in the form of NH3 gas. The C/N ratio is adjusted to (10-20)/1 by stripping-off NH3, and anaerobic fermentation treatment is carried-out at pH 7-8 (with acid e.g. H2SO4 etc.) at 35-55 deg.C.

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P.T.O.

# PATENT ABSTRACTS OF JAPAN

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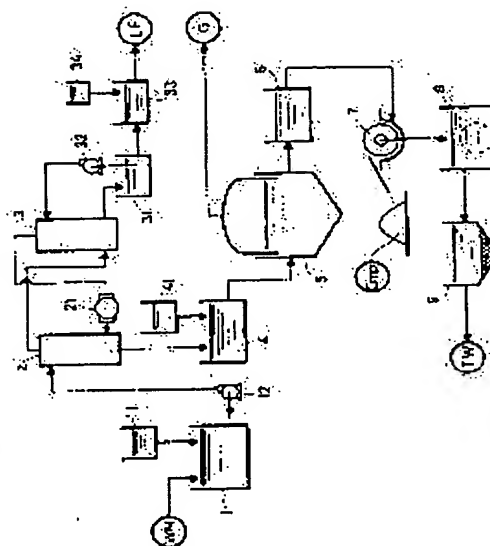
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## (54) DISPOSAL OF WASTE MATERIAL

### (57)Abstract:

**PURPOSE:** To enhance a gas-generating efficiency and to reduce an amount of ammoniac nitrogen, by removing a part of the ammoniac nitrogen so that the ratio of carbon to nitrogen in waste material is controlled in a range suitable for anaerobic methane gas-generating fermentation.

**CONSTITUTION:** Waste material WM to be disposed is reserved in a reservoir 1, adjusted at pH 10 or higher by addition of an alkali from an alkali tank 11, fed to the top part of a dispersing tower 2 by a pump 12, and dispersed from the top part to strip and purge ammoniac nitrogen as ammonia gas. After stripped, the waste material is received in a pH-adjusting vessel 4, neutralized at pH 7W8 or so by addition of an acid, e.g. sulfuric acid or the like, from an acid tank 41, and carried to an anaerobic fermentation vessel 5. Thereafter, the waste material is fermented. The digested liquid is aerated in an aeration vessel 6, and separated into a solid and a liquid in a solid-liquid separation vessel 7. Said ammonia stripping is done preferably under the condition of C:N=10W20:1.



## LEGAL STATUS

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